

REMARKS

Applicant has carefully reviewed the final office action mailed May 17, 2006 and offers the following remarks to accompany the above amendments.

Status of the Claims

Claims 2-30 are pending in the present application. Claim 1 was previously canceled. No claims are added or canceled. Accordingly, claims 2-30 remain pending.

Allowed and Allowable Subject Matter

Applicant wishes to thank the Examiner for indicating that claims 2, 3, 6, and 28-30 are allowed. Applicant also wishes to thank the Examiner for indicating that claims 5, 12, 15, 18-21, and 23 are allowable if rewritten in independent form. Applicant reserves the right to re-write claims 5, 12, 15, 18-21, and 23 in independent form at a later date.

Applicant also notes that the rejection of dependent claim 8 was removed, as indicated on page 5 of the Final Office Action mailed May 17, 2006, but that the claim is not included in the list of claims that would be allowable if re-written in independent form. Accordingly, Applicant believes that claim 8 should have been included in the list of claims that would be allowable if rewritten in independent form.

Rejection under 35 U.S.C. § 103(a) to Kumagau et al., Peeters et al., and Belotserkovsky et al.

Claims 4, 7, 9-11, 14, 16, 17, 22, and 24-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent No. 1172956A1 to Kumagai et al. (hereinafter "Kumagai") in view of U.S. Patent No. 6,628,738 to Peeters et al. (hereinafter "Peeters") and further in view of U.S. Patent No. 6,704,374 to Belotserkovsky et al. (hereinafter "Belotserkovsky"). Applicant respectfully traverses.

However, in order to expedite allowance of the application in light of the allowed subject matter, Applicant has amended claims 4, 7, 17, and 25 to indicate that the values assigned to the carriers are inversely related to the noise power. Based on the comments by the Patent Office on page 2 of the Final Office Action mailed May 17, 2006, and these amendments, Applicant respectfully submits that the rejection of claims 4, 7, 17, and 25 should be withdrawn. Claims 9-11, 14, 16, 22, 24, and 26-27 depend, either directly or indirectly, from one of claims 7, 17, and

25. Accordingly, the rejection of claims 9-11, 14, 16, 22, 24, and 26-27 should be withdrawn as well. Applicant respectfully submits that claims 4, 7, 9-11, 14, 16, 17, 22, and 24-27 are in condition for allowance and requests notice of the same at the earliest possible date.

Rejection under 35 U.S.C. § 103(a) to Peeters, Kumagai, Belotserkovsky and Lowegian

Claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Peeters in view of Kumagai and Belotserkovsky and further in view of Lowegian International Publication: "dspGuru: Infinite Impulse Response Filter FAQ" (hereinafter "Lowegian"). Applicant respectfully traverses.

Claim 13 depends directly from claim 12 and indirectly from claims 11 and 7. Based on the allowable subject matter in claim 12, as indicated on page 1 of the Final Office Action mailed May 17, 2006, Applicant respectfully submits that claim 13 should have been objected to as dependent upon a rejected base claim rather than rejected. However, Applicant has amended claim 7 as detailed above. Accordingly, the rejection of claim 13 should be withdrawn for at least the same reasons as set forth above with respect to claim 7. Applicant respectfully submits that claim 13 is in condition for allowance and requests notice of the same at the earliest possible date.

Conclusion

The present application is now in condition for allowance and such action is respectfully requested. The Examiner is encouraged to contact Applicant's representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

Respectfully submitted,

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